

REMARKS

Applicants respectfully request entry of this amendment and reconsideration of the present application in view of the foregoing amendment and in view of the reasons that follow.

The foregoing amendment raises no new issues, would not require additional search, and places the present application in condition for allowance. Accordingly, Applicants respectfully request the entry of the amendments.

I. Status of the Claims

Claims 21, 31-62, 65-67, 69-70, 72-73, and 76-88 have been cancelled previously. Claims 1, 22, and 24 are currently being amended. No claims are being added.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-20, 22-30, 63-64, 68, 71, and 74-75 are now under examination in this application.

II. Claim Rejections

The PTO rejected claims 1-20, 22-30, 63-64, 68, 71, and 74-75 as allegedly being anticipated or alternatively obvious over Yudasaka (EP 1085578) or Furusawa (WO 00/59044 or US 6,518,087). Final Office Action, pages 2 and 5.

According to the PTO, there is no specific structural recitation in regard to the nanoparticles in the claims that would distinguish over the solid nanoparticles of Yudasaka. Final Office Action, page 7. Applicants have amended claims 1 and 22 to recite "*the nanoparticles comprising silicon element or germanium element*". The support for the recitation can be found in the published application US 2006/0237719 at paragraphs [0019], and [0098] for example.

Applicants made the amendment solely to advance the prosecution of the present application without prejudice and disclaimer and therefore reserve the right to file a continuing application to claim omitted subject matter.

The amendments to the claims obviate the claim rejections for the following reasons.

First, neither of the cited references teaches the currently amended claim limitation. In the present claims, the semi-conducting nanoparticles comprise silicon element or germanium element. In view of the specification, one skilled in the art would understand that the term “silicon element” means elemental silicon or silicon in elemental state. In the same vein, the term “germanium element” means elemental germanium or germanium in elemental state. This interpretation is specifically supported by the present specification paragraph [0098], wherein it states:

“In the present embodiment nanoparticles of group IV elements, such as silicon and germanium are used. Silicon and germanium are known as single element semiconductor materials....”

In contrast, in both Yudasaka and Furusawa, the particles are silane compounds of formula Si_nX_m or $\text{Si}_a\text{X}_b\text{Y}_c$ wherein X is a hydrogen or halogen atom, Y is a boron or phosphorous atom. Please see Yudasaka at paragraphs [0052]-[0060], and Furusawa (US 6,518,087) at columns 5-8. Thus, the nanoparticles in the present claims are structurally distinguishable over the particles in the cited references.

Moreover, the cited references, individually or in combination, do not provide any suggestion or motivation that would lead one skilled in the art to arrive at the present claims. In addition to the structural difference, the nanoparticles in the present claims have different properties.

The nanoparticles in the present claims are not soluble in a carrier fluid, instead, are solid suspended in the liquid carrier. In contrast, the particles in the cited references are desirably soluble in a solvent. Yudasaka and Furusawa specifically teach that the silane compounds are preferred to be soluble in a solvent. Please see Yudasaka at paragraphs [0052] and [0057], and Furusawa (US 6,518,087) at col. 5 lines 10-19 and col. 6 lines 53-62.

Additionally, the nanoparticles in the present claims are semi-conducting or of semi-conducting material. In contrast, the silane compounds in Yurusaka and Furusawa are not semi-conducting.

For the reasons set forth above, the presently amended claims are not anticipated or obvious over Yudasaka or Furusawa. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the claim rejections.


CONCLUSION

Applicants believe that the present application would be in condition for allowance upon entry of this amendment. Entry of this amendment and favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 08-2025. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 08-2025. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.